Serial Number: 10/659,920 Filing Date: September 11, 2003

Title: ADAPTIVE PREFETCH OF I/O DATA BLOCKS

Assignee: Intel Corporation

REMARKS

This responds to the Office Action mailed on February 18, 2005.

Claim 34 is amended; as a result, claims 21-40 are now pending in this application. The amendment to claim 34 is done to correct an informality which the Examiner has objected to. The Examiner has objected to the use of the term "threshold" in independent claim 34. Although that term "threshold" is no specifically used in the specification, Applicant believes that support for its use does in fact exist in the original filed specification. However, in the interest of expediting the application the Applicant has amended claim 34 to include a condition which is specifically declared in the specification and which is akin to the term "threshold."

Therefore, Applicant believes that no additional search is necessary and that the amendment is proper and should be entered by the Examiner, since it was the Examiner that was objecting to the term "threshold" and since the amendment merely corrects and informality. Correspondingly, the Applicant respectfully submits that the amendment is proper after Final and that it should entered in the present application.

Drawings Objections

The Examiner objected to the drawings under 37 C.F.R. 1.83(a). The Examiner objected to the Applicant's use of the term "threshold" in independent claim 34 and requested that this feature be enumerated in the drawings. Applicant has amended independent claim 34 and withdrawn the term "threshold." Accordingly, Applicant does not believe amendments to the drawings are necessary. Thus, Applicant believes that the drawing objections are no longer appropriate and should be withdrawn.

Specification Objections

The Examiner objected to the specification as failing to provide proper antecedent basis for the claimed subject matter. Again, this objection relates to the use of the term "threshold" within independent claim 34. Applicant has removed this term from claim 34. Therefore, this objection is no longer appropriate.

AMENDMENT UNDER 37 C.F.R. 1.116 - EXPEDITED PROCEDURE

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§112 Rejection of the Claims

Claims 34-40 were rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. The offending term "threshold" has been removed from independent claim 34. Accordingly, these rejections are no longer appropriate and should be withdrawn.

§102 Rejection of the Claims

Claims 21-24, 26-32 and 34-40 were rejected under 35 USC § 102(b) as being anticipated by Macon, Jr. et al. (U.S. 5,600,817). It is of course fundamental that in order to sustain an anticipation rejection that each and every step or element in the rejected claims must be taught or suggested in the cited reference.

More specifically, the Examiner has asserted that the Macon reference may be used to teach or suggest conditions under which no data prefetching occurs. It is asserted that these teachings in Macon render Applicant's independent claims 21, 28, and 34 anticipated. Applicant respectfully disagrees with the Examiner's conclusions for the following reasons.

The Examiner cites FIG. 6 steps F and O in support of the conclusion that data prefetching in Macon is capable of being biased against prefetching. The processing flow link in FIG. 6 from step F to step O does appear on the surface to avoid prefetching; however, a complete reading of the description of FIG. 6 in Macon demonstrates that this is in fact not the case and that the condition depicted from processing steps F to O are for multiple iterations of the method depicted in FIG. 6 which requests the same data that is already prefetched and available from cache.

The Examiner's attention is directed to Macon, column 5, lines 58-67. In the detailed discussion of Macon, it is clear that the teaching for bypassing the prefetch step G in FIG. 6 of Macon is described because the step G had already been performed on the data being requested and that data is already available from within cache. In other words, the teaching of Macon is that prefetching always occurs for data as the Applicant has previously asserted in prior responses. Macon is not capable of biasing against prefetching; rather, Macon avoids performing a prefetch twice on data which had already been prefetched and is already available

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in cache. Macon clearly states the rationale for this is to avoid accessing storage multiple times for the same data which was already prefetched once and is already available from cache.

Therefore, Applicant respectfully disagrees with the Examiner's reading and conclusions with respect to the Macon reference. Moreover, Applicant continues to assert that Macon always prefetches data from storage; although it may occasionally prefetch data only once and distribute it from cache on subsequent access requests. Conversely, Applicant's independent claims bias in favor of not prefetching. Macon does not bias based on a specific request. Macon either acquires data from cache (where the data is in cache as a result of a prior prefetch operation) or Macon prefetches the data if it has not already been prefetched. There is no operational biasing, only a check to see if data is in cache before a prefetch occurs; data is always prefetched in Macon and such a condition is not what is claimed and what is taught by Applicant's independent claims.

Therefore, Applicant respectfully requests that the rejections with respect to Macon be withdrawn and the claims allowed.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, Joseph Mehrle at 513-942-0224, or the undersigned attorney to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

RAYMOND S. TETRICK

By his Representatives,

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Date 18 2005

By <u>(IMM 977, 977 (CC</u> Ann M. McCrackin

Reg. No. 42,858

<u>CERTIFICATE UNDER 37 CFR 1.8:</u> The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450,

Alexandria, VA 22313-1450, on this 18th day of April 2005.

Signature

Name